

About 535 words in main text

Datus Proper
1085 Hamilton Road
Belgrade, MT 59714
(406) 388-3345

INTER-FLUVE, INC.

Stream reclamation works.

What I saw was not pretty. A backhoe crawled across a green meadow on giant tracks, lowered itself into a shallow spring creek, and lifted massive scoops of silt from the bed. The machine's operator used the silt to build a bar at the inside of a natural meander. It was a muddy operation, but the result was a narrower, deeper stream -- as it was before cattle trampled it.

In its new channel the stream ran faster, cutting into an eroded bank at the outside bend of the meander. The backhoe skimmed the top of the bank and stacked its sod back in the meadow. The bucket then tapered the bank into a natural, stable profile and "armored" its base against erosion with a layer of small rocks from the stream's bed. The last step was to pick up the sod and cover the reshaped bank with it.

The work took four days for almost a mile of stream. The reconstructed bars looked raw till new grass sprouted, but the trout moved back quickly, exploiting their improved habitat.

Three years later, visiting anglers do not notice the traces of stream rehabilitation. The backhoe, intrusive as it seemed, came close to restoring nature's shapes without the structures that humans often need when they repair streams with hand tools. There are no dams, no cribs, no boulders, no contrived pools. There is just a spring creek winding through a grassy meadow, mayflies hatching, trout rising.

Recently I talked to Dale Miller, who is one of the founders of Inter-Fluve -- the firm that did the work I watched. If the creek had run through a forest instead of a meadow, he said, logs might have been used in the rehabilitation. Or, in a mountain stream fed by snow-melt, boulders might have been appropriate. The idea was to work with each stream's geomorphic nature and native vegetation.

Miller is a hydrologist by training, 38 years old, and has worked on projects from New Jersey to Washington State, Argentina to Scotland. When I caught up to him briefly, I noticed that most of the other chairs in his headquarters were empty. Inter-Fluve's ten full-time employees spend most of their time on the job, directing backhoe-operators provided by subcontractors.

The river-keepers of Britain have long been skilled at the maintenance of trout streams. Full-scale restoration, however, had to await further basic research by universities and state

fisheries scientists. In Montana, which has been a locus of such work, private entrepreneurs have spun off and learned how to apply the research on-stream. With some 300 projects completed over ten years, Inter-Fluve is an old-timer in this infant industry. The process strikes me as exactly the way capitalism is supposed to work.

Of course it would have been better if that mile of spring creek had not needed help -- but it did. Tens of thousands of other miles still do. There are damaged streams in urban areas, farm districts, and even national parks. Humans have allowed overgrazing by domestic livestock and big game. We have logged, mined, destroyed vegetation, and built roads in fragile watersheds. It's good news that help is available.

Additional Information

1. Address: Inter-Fluve, Inc., 25 N. Willson Ave., Bozeman, MT 59715. (406) 586-6926.

2. I chose to make a stream -- rather than a human -- the main focus of the article. I happen to know the stream well, and the humans in Inter-Fluve are hard to catch for long. They have so much work that they don't need publicity.

3. Photos: the ones enclosed are all from Inter-Fluve, and some are originals. Could we get them back fairly promptly? If none of these work, I could send scenic spring-creek shots, but without work going on.

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